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ABSTRACT

Nongraded education is the practice of teaching children of different ages and ability levels together in the same classroom, without dividing them or the curriculum into steps labeled by "grade" designations. Children progress along the continuum from easier to more difficult material at their own, varying rates of speed. Interest in nongraded education is usually focused on the primary years because developmental differences make nongrading particularly appropriate for young children. Chapter 1 begins this bulletin by reviewing the history of graded and nongraded education in the United States and examining the development of the concept of nongrading over the course of time. Chapter 2 reviews the research base for nongraded education at the primary level. Chapter 3 examines various ways the concept of nongraded primary education can be put into practice. Appended is a 31-item bibliography and a list of four persons interviewed for the bulletin. (MLF)

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NONGRADED EDUCATION

Mixed-Age, Integrated, and Developmentally Appropriate Education for Primary Children

Joan Gaustad

U.S. DEPARTMENT OF EDUCATION
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Preface

The Oregon Educational Act for the 21st Century, passed by the Oregon State Legislature in June 1991, calls for major restructuring of the Oregon school system. At the primary level, however, the act's full impact is still undetermined. The act ordered the Oregon Department of Education to develop models for "developmentally appropriate nongraded primary programs for children enrolled in prekindergarten through the primary grades," in consultation with teachers, parents, administrators, and child development experts. In 1993 the State Board of Education will present its recommendations to the legislature, which will then decide whether such programs should be implemented in all Oregon school districts (Oregon State Legislature 1991).

The act has stimulated much interest in nongraded primary education among Oregon teachers and administrators, along with concern about the implications for school districts should it be mandated in the near future. Teachers trained in graded education and citizens who experienced it in their own childhoods may find it hard to imagine any other way of organizing schools. But nongraded education is not a new, untried concept; in fact, it is far older than the concept of graded organization. It stands on a foundation of decades of research on the nature of learning in young children. Schools in various parts of the United States and in other nations have successfully operated nongraded primary programs for years.

This Bulletin is the first of two issues on the subject of nongraded primary education. This issue surveys the history of graded and nongraded education in the United States, examines the research base for nongraded primary education, and describes the functioning of the nongraded classroom. Next month's Bulletin examines how an individual school, several Oregon school districts, a Canadian province, and two state school systems approach the process of transition from graded to ungraded organization. It concludes by presenting some of the options available to school boards with respect to nongraded primary education.

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Introduction

Schools must change along with the society they serve. In the twentieth century the rate of change in society has increased with every passing decade, often leaving schools scrambling to adapt.

Technological advances are making technical knowledge and problem-solving skills prerequisites for an ever-larger percentage of jobs. The increasingly global nature of economic competition has prompted critical examination of the skills and educational level of the American work force in comparison with those of other nations.

Changes in America's cultural makeup are presenting schools with an increasingly diverse body of students to teach. Social problems such as violence, drug use, and the fragmentation of families result in schools being asked to teach social skills in addition to academic knowledge. At the same time, the amount of information that needs to be learned is growing at a dizzying rate.

The approach of the year 2000 has catalyzed awareness of the shortcomings of current educational practices and of the need for reform to meet these new challenges.

Educational Goals for the 21st Century

Schools can't possibly teach students all the factual knowledge they will need to know in their lives. Workers and citizens need to know *how to learn*, how to think critically, how to communicate effectively, how to solve new problems as they arise. Teaching these skills must become a primary goal of education.

These goals are being recognized and stated in proposals for educational reform across the continent, from the district level to the national level. Some examples are British Columbia's Year 2000 Program, the Kentucky Educational Reform Act (KERA), and the Oregon Educational Act for the

21st Century. Nongraded education at the primary level is a key component of all these programs.

What Is Nongraded Education?

Nongraded education is the practice of teaching children of different ages and ability levels together in the same classroom, without dividing them or the curriculum into steps labeled by "grade" designations. Children progress along the continuum from easier to more difficult material at their own, varying rates of speed. They make *continuous progress* rather than being "promoted" once per year. A point of some confusion with the term is that those unfamiliar with it often assume it means *not giving letter grades* rather than *not sorting children by grade levels*. While the use of alternative types of evaluation is indeed part of the nongraded approach, it is only a small element.

Many different names have been used to describe this approach, including *ungraded* or *non-age-graded education*, *multiage* or *mixed-age grouping*, *heterogeneous grouping*, and *open education*. The term *multigraded* usually refers to the teaching of more than one grade level in the same classroom, retaining grade labels and separate curriculum for each group of students; however, occasionally *multigraded* is used interchangeably with *multiaged*. To further confuse matters, the term *nongraded* has sometimes been used for the practice of grouping children by ability level or developmental age rather than chronological age, with the aim of creating homogeneous groups.

The term *nongraded* seems inadequate, considering how many interlinked components make up the approach. The Kentucky Department of Education deliberately doesn't use the term because it considers the principles guiding its revamped primary program "broader than the concept of 'ungradedness.' The Primary School in Kentucky is ungraded, but it is many other things as well" (Kentucky Department of Education undated a).

It is understandable for practitioners to desire a label that conveys more information. Unfortunately, "heterogeneous, flexible multiaged grouping, following a continuous progress model, with developmentally appropriate practices, integrated curriculum, attention to social and emotional factors, and authentic assessment" is prohibitively unwieldy—and still not complete!

In practice, teachers and administrators frequently use abbreviations such as "DAP," for developmentally appropriate practices, "MID," for multiaged, integrated, and developmentally appropriate, or "multiage" for multiage grouping. For simplicity's sake, this Bulletin generally uses the term *nongraded*, as first defined. The above-mentioned alternative terms also appear, however, particularly in reference to other published materials.

Nongraded Education at the Primary Level

The nongraded approach can be used at any level. Montessori schools use it for children aged three through twelve; Melbourne High School in Melbourne, Florida, has been nongraded since the early sixties (Scott Willis 1991). The Canadian province of British Columbia is planning a continuous progress approach that will extend from kindergarten age through high school graduation (Ministry of Education 1991a). However, interest in nongraded education is usually focused on the primary years. This is partly because developmental differences make nongrading particularly appropriate for young children, and partly because of the perceived importance of giving children a "good start" at the beginning of their educational experience.

Chapter 1 begins this Bulletin by reviewing the history of graded and nongraded education in the United States and examining the development of the concept of nongrading over the course of time. Chapter 2 reviews the research base for nongraded education at the primary level. Chapter 3 examines various ways the concept of nongraded primary education can be put into practice.

Chapter 1

Graded and Nongraded Education in the United States

In societies throughout history, much learning has taken place informally. Children learn factual information and social and technical skills from adults and other children, in the context of play and work.

Until the midnineteenth century, what formal schooling existed occurred either as individual tutoring or in relatively small mixed-age groups. "If you had asked a student from [a one-room school of the 1800s] what grade he or she was in, you would likely have received a bewildered look," notes researcher Bruce Miller (1989).

The Origins of Graded Education

In the wake of the industrial revolution and urbanization, the revolutionary idea of mass public education created the need for a more efficient and economical system capable of handling large numbers of pupils. Secretary of the Massachusetts Board of Education Horace Mann was impressed with the novel practice of classifying and dividing students by age while visiting Prussia in 1843. "Within a decade, Mann's ideas were being widely accepted by administrators who saw in them a parallel with successful manufacturing practice" (David Pratt 1986). Thus the graded system of education was introduced to the United States.

"It must be appreciated that the nineteenth-century graded school was a significant creative effort appropriate for its time," acknowledge educators John Goodlad and Robert Anderson (1987). They list the establishment of formal teacher training schools and the appearance of graded textbooks as other factors that contributed to the general adoption of graded schooling.

Legislation made these new practices official and set standards for age of entry and curricula.

Critics of the new system soon appeared, protesting that the rigid expectations of graded education often shortchanged the needs of individual students. Over the years, various educators experimented with more flexible approaches geared to individual differences. Graded schools themselves acknowledged the variations among students by subdividing age groups into "tracks," providing extra tutoring for slower learners, and so forth. But graded education remained firmly entrenched as the standard.

Multiaged classrooms continued to be common in rural areas where, because students were few in number, subdivision was not economical. But this was typically regarded as a less desirable choice, an unfortunate necessity due to economic and geographic realities.

Drawbacks of Graded Education

Graded education is based on the assumptions that students of the same chronological age are basically at the same level of development, can be taught in the same way, and will progress at the same rate. However, both research and practical classroom experience (explored in depth in chapter 2) suggest that these are questionable assumptions.

Different Rates of Learning

Young children of the same chronological age vary greatly in readiness to learn. In addition, individuals often progress at vastly different rates in different areas. "A fifth-grade teacher, in spite of his designation, is not a teacher of fifth-grade children," Goodlad and Anderson (1987) point out. "At a given time, he teaches third, fourth, fifth, sixth, seventh, eighth, and even ninth grades, as far as learner realities are concerned, even though all the pupils in his room may be labeled 'fifth grade'."

Different Learning Styles

It is now widely recognized that individuals have different "learning styles." Differences in cultural and family background increase the likelihood that any particular teaching method will not be effective for all the children in a class.

As a result, children whose pace is slower, or whose learning style varies from the norm, tend to fall behind, while those who learn more quickly become bored and impatient with the too-slow pace.

The Effects of Failure on Self-Esteem

As knowledge about the learning process has grown, so has concern about the effects of failure on children's self-esteem and their attitudes toward school. "The urge to master the skills of esteemed adults and older children is as powerful as the urge to stand and walk is for 1-year-olds," states the National Association for the Education of Young Children (NAEYC) in its 1987 position paper. "Yet when expectations exceed children's capabilities and children are pressured to acquire skills too far beyond their ability, their motivation to learn as well as their self-esteem may be impaired" (NAEYC 1987).

Children who fail become discouraged and are more likely to drop out before completing high school. Being placed in slower "tracks" or remedial programs only confirms these students' negative image of themselves and their expectations of failure.

Promotion or Retention?

The choice between promoting students to the next grade or retaining them for an entire year frequently leaves teachers in a dilemma. What should be done with a student who works at or above grade level in some areas but below it in others? How far behind must a student be to justify retention?

Emotional factors must also be considered. Yamaoto found that "the only two life events [children] rated as more stressful than being retained were going blind or losing a parent" (cited in Kentucky Department of Education undated a). When does the emotional damage caused by seeing classmates move ahead outweigh the frustration a "socially promoted" student experiences in struggling to catch up?

Studies show that retained students consistently do worse than equally low achievers who are promoted (Lorie A. Shepard and Mary Lee Smith 1986), and are more likely to drop out (Deborah L. Cohen 1989B). However, Goodlad emphasizes, "Both promotion and nonpromotion have negative repercussions for many children. To find that promotion is somewhat more beneficial than nonpromotion is of negligible significance compared with this earlier conclusion" (cited in Goodlad and Anderson).

Alternatives to retention are examined at greater length in the February 1992 OSSC Bulletin, *Alternatives to Retention: If Flunking Doesn't Work, What Does?*

Forces Fostering the Continuation of Graded Education

Once the graded system of education had been established, a number

of factors contributed to its maintenance, independent of its advantages or drawbacks. These included textbooks, standardized testing, and simple inertia.

The Textbook Industry

Goodlad and Anderson acknowledge the value of textbooks as resources, but argue that they do not allow for the wide range of differences among students. Textbooks are aimed at the lowest common denominator, encourage conformity, and may stifle the progress of above-average students. These authors contend that "the stranglehold of the publishing industry, whose fortunes were (and are) geared to selling complete sets of textbooks for each grade level," has interfered with educational change.

Standardized Testing

Standardized testing, developed at the turn of the century to identify retarded children, later evolved into a tool for sorting normal children by ability or achievement. According to Tufts University psychologist David Elkind (1981), "Machine-scored group testing, probably more than any single influence, has heightened the factory quality of our schools, pushing them to turn out uniform products."

The quantitative format of standardized tests dovetails neatly with the concept of classifying students by grade levels. Unfortunately, the validity of tests is questionable for young children. Children are erratic test takers; results can vary greatly depending on the child's mood, reaction to the test-giver, and even ability to control a pencil (Kantrowitz and Wingert 1989). In addition, the traits tested for are unstable at early ages and correlate only moderately well with later academic achievement (Shepard and Smith).

Reliance on standardized tests as a major assessment tool encourages the teaching of standard content in a standard format, and discourages the teaching of material not measured by the tests.

Inertia /Tradition

Perhaps the greatest force supporting the continuation of graded education is simply the fact that it has existed for well over a century. Curriculum, recordkeeping, teacher training, and the design of school buildings are based on the assumption of graded education; parents, teachers, and administrators are accustomed to it. "Most people view graded schools as the *natural way to organize education*," observes Bruce Miller (1991).

The First Wave of Nongraded Education and Why It Failed

The successful launch of the Soviet Sputnik in 1957 prompted a reexamination of the United States' educational system. In this climate of reform, the publication of *The Nongraded School* by Goodlad and Anderson in 1959 had a major impact. The book, which asserted the superiority of nongraded instruction over graded instruction on the basis of a review of research, stimulated the implementation of programs identified as nongraded in "thousands of school districts" (Pratt 1986), as well as extensive research into multiage and multigrade grouping.

Several complementary curriculum innovations—team teaching, individualized instruction, and the British-based "open education," which is basically identical to nongradedness—contributed to the spread of nongraded programs during the sixties and early seventies. However, though some elements were assimilated into mainstream educational practices, most of these experiments proved short-lived and unsuccessful. A number of basic reasons for this failure have been identified.

Poor Definition and Misunderstanding

One of the greatest problems was an inadequate understanding of nongradedness. Many of the unsuccessful nongraded programs proved, on examination, to have adopted the label of "nongraded" while changing little in substance. "The movement turned out to be an archetypal case of fashionable rhetoric concealing educational inertia," charges Pratt.

A similar problem arose in research. According to Goodlad and Anderson, in many studies of nongradedness researchers did not clearly define the criteria they were attempting to measure. Inconclusive results were obtained because there was too little difference between the "nongraded" and control classes being compared.

In cases where substantial changes were made, often the *wrong* changes were made due to misunderstanding. For example, many teachers thought "open education" meant literally tearing down classroom walls and dispensing with structure. As Barbara Kantrowitz and Pat Wingert report, "The results were often disastrous."

Lack of Training

Kathleen Cushman (1990) points out that in Great Britain teachers were taught developmental theories and given opportunities to practice in model open classrooms. But most American teachers possessed neither theoretical understanding nor practical training. "When placed in a multigrade setting, teachers of the 60s and 70s discovered that the time require-

ments and skills needed to be effective were simply *not part of their prior training and experience*," notes Miller (1991). It is not surprising that most became disillusioned with the nongraded approach.

Lack of Support

The fact that the rest of the educational system remained organized around grading placed a double burden on teachers of nongraded classes. "Everything from required testing to mandatory grade-level textbooks was organized to counter mixed-age principles," says Cushman. In addition, the extra planning time required by multiage grouping was not provided by the standard school schedule.

According to Shirley Gidley, specialist for the Oregon 21st Century Schools Council, in some cases nongraded classes were promoted by an enthusiastic administrator, while the staff as a whole lacked real commitment to the nongraded approach. When the promoter of nongraded programs left the school or district, the programs were discontinued.

Lack of support from parents and the community was another problem. Schools had made little effort to involve parents or explain the innovations to them. "We didn't truly educate our public as we were moving along," acknowledges Laura Mast, a consultant for the North Carolina Department of Education (Deborah L. Cohen 1989a).

The Back to Basics Movement

Starting in the early seventies, dissatisfaction with ineffective reforms prompted a return to traditional graded teaching methods. In the eighties, international economic competition and numerous reports calling for school improvement fueled a full-fledged "back to basics" movement. In this climate, only a few scattered schools and classrooms maintained the nongraded approach.

Elkind described the tenor of the times in his 1987 book *Miseducation*:

> Schools are once more under attack for not adequately preparing children academically. Particularly devastating are reports comparing the academic achievement of American children with those of other countries, such as Japan. Educators are under pressure for accountability, for effectiveness, but most of all for improving the academic performance of the children in our schools.

This pressure on the schools was passed on to the children. Schools began introducing academic curricula earlier, in the hope students would ultimately achieve more if they had an earlier start. First-grade tasks were moved down to kindergarten—"only with more cutesy pictures and larger

print for younger children," says Donna Reid Connell (1987). Drills and rote learning were increased.

Increased Reliance on Standardized Testing

Greater achievement was usually equated with higher scores on standardized tests. Schools increased testing and began to introduce it earlier. For example, 1985 legislation in the state of Georgia required six-year-olds to pass a standardized test before being admitted to the first grade.

"Five-year-olds who used to spend their days finger-painting or singing were hunched over ditto sheets, preparing for the big exam," recount Kantrowitz and Wingert. "'We would have to spend a month just teaching them how to take the test,' says Beth Hunnings, a kindergarten teacher in suburban Atlanta."

Developmentally Aware Educators Object

Many early childhood specialists objected to these practices. Research in cognitive development had indicated that young children are developmentally unable to learn in the same fashion as older children, and that pushing them to do so is not only ineffective, but may be damaging.

In its 1987 position statement, the NAEYC criticized the above-described trends as "incompatible with current knowledge about how young children learn and develop" (NAEYC). This influential paper summarized research on early childhood learning and development, identified inappropriate educational practices, and described appropriate practices that should replace them.

The practices recommended by the NAEYC were clearly more compatible with a nongraded framework than with a graded one. The stage was set for a new wave of interest in nongraded education.

Nongraded Education in the Nineties

The nongraded education of the nineties differs from that of the sixties. Some aspects of it are new; some are simply more clearly developed and articulated than they were during the previous movement.

A More Extensive Research Base

Research in child development and learning during the intervening decades has given nongraded education a much stronger foundation. Knowledge was also gained from studies of earlier nongraded programs.

Says Carol Lauritzen, professor of education at Eastern Oregon State College, "We can take the theoretical basis that was used in the sixties and seventies, and add to it this much larger wealth of information about...children's development in reading and writing and learning and thinking, and have a much better chance of making it work now."

This research base will be examined more fully in chapter 2.

Wider Understanding of the Conceptual Model

Goodlad and Anderson credit several writers in the late sixties and early seventies with developing the conceptual framework supporting nongraded education and creating guidelines for implementation. They credit Barbara Nelson Pavan in particular with articulating the goals, organizational framework, and operational elements—curriculum, teaching methods, and evaluation—that characterize true nongraded education.

This conceptual framework has become widely known, and the basic misunderstandings common several decades ago are much less likely to occur today.

Mixed-aged grouping, open education, developmentally appropriate, ungraded: nongraded education has always been known by alternative names. The labels are even more profuse today, as some educators deliberately avoid the term "nongraded" lest it evoke negative memories of unsuccessful past programs.

Mainstream Acceptance

This time around, educators interested in nongraded education aren't rowing against the current; the educational establishment appears to be moving in the same direction. Influential mainstream organizations such as the National Association of State Boards of Education and the National Association of Elementary School Principals have joined the NAEYC in issuing recommendations that support developmentally appropriate practices at the primary level.

"'The entire early-childhood profession has amassed itself in unison behind these practices,' says Yale education professor Sharon Lynn Kagan...even groups like the Council for Basic Education, for years a major supporter of the traditional format, have revised their thinking" (Kantrowitz and Wingert).

The Canadian province of British Columbia and the state of Kentucky have mandated a changeover to the nongraded model, Kentucky at the primary level, British Columbia from kindergarten all the way through high school graduation. Oregon is one of the other states considering nongraded

primary education. In addition, individual schools across the nation are starting pilot programs and integrating nongraded elements into their curricula.

More Attention to the Process of Change

Another difference is a greater knowledge about, and awareness of, the process of change itself. Entities considering nongraded practices are making efforts to educate teachers and parents, to involve them in the decision-making process, and to allow flexibility and choice in the exact form change will take in individual schools. The process of change is explored in next month's Bulletin, *Making the Transition from Graded to Nongraded Primary Education.*

Societal Changes Make Nongraded Education Even More Appropriate

As Goodlad and Anderson point out, school organization is a part of its time and cultural milieu. Changes have occurred in American society that make nongraded education even more appropriate. In light of the increasing diversity of the population of the United States, a type of education that capitalizes on individual differences has obvious advantages over one based on an increasingly less attainable homogeneity. The Kentucky Department of Education (undated a) notes that children at risk for various reasons have been found to benefit even more than other students from nongraded education.

"Changing demographics, more than philosophical arguments, will force us into a search for school practices designed to accommodate these individual differences without loss of educational quality in schools," conclude Goodlad and Anderson.

Chapter 2

The Research Base for Nongraded Primary Education

Findings from three main sources support the nongraded approach: research in child development and the learning process, research focusing on the effects of mixed-age grouping, and studies comparing graded and nongraded programs.

Research in Child Development and Learning

Accumulated research in child development has thrown light on the differences between learning in young children and learning in older children and adults. Other cognitive research has revealed differences in learning patterns among individuals of all ages. While these differences also have implications for education at higher levels, taking them into account is particularly important at the primary level, when children are more psychologically vulnerable.

Young Children Learn by Doing

Swiss psychologist Jean Piaget described four major stages in children's cognitive development: sensorimotor, preoperational, concrete operational, and formal operational. Experiments have confirmed that children in all cultures progress through these stages (Elkind 1981). Piaget argued that at all stages children "actively construct reality out of their experiences with the environment" (Elkind). In other words, they learn by doing.

Between the ages of six and nine, children begin to move from the *preoperational* to the *concrete operational* stage. They become capable of

abstract thought—but not yet at the same level of abstraction as adults. "While children can use symbols such as words and numbers to represent objects and relations, they still need concrete reference points," the NAEYC summarizes. "Primary age children still need real things to think about."

Primary-age children are physiologically unable to endure long periods of inactivity. Because of the immaturity of the frontal lobe of the brain, sitting quietly requires a conscious effort more fatiguing than running or jumping, according to Martha Denkla, professor of neurology and pediatrics at Johns Hopkins University (Kantrowitz and Wingert). Children also need physical activity to practice their developing physical skills.

For all these reasons, appropriate primary education provides children with opportunities for active, hands-on learning as opposed to passive listening or rote learning.

Children Learn at Different Rates

Primary-age children vary in their rates of intellectual development just as they do in physical development. "Children entering the first grade differ in mental age by approximately four full years," assert Goodlad and Anderson. They present achievement data demonstrating that the amount of variation actually increases as students progress through subsequent grades. In addition, children typically progress at different rates in different areas of achievement, and they alternately spurt ahead and hit plateaus rather than moving at a steady pace.

Developmentally appropriate education must be flexible in its expectations for the timing of children's achievement, rather than expecting all children to progress at a uniform rate.

Learning Styles Differ

A number of psychologists are investigating differences in learning styles. One of the most notable is Howard Gardner. As part of the Project on Human Potential at Harvard University, Gardner drew on psychological, biological, and cross-cultural research to develop his theory of multiple intelligences.

In addition to the *linguistic* and *mathematical/logical* intelligences toward which Western educational systems have traditionally been oriented, Gardner identified five others: *musical*, *spatial*, *bodily-kinesthetic*, *interpersonal*, and *intrapersonal* intelligences. According to this theory, individuals whose primary type of intelligence is one of the less-valued five types are shortchanged in traditional education. An ideal curriculum would afford

opportunities for development for all seven intelligences (Gardner 1983).

Integration: The 'Whole Child' Learns

"One of the most important premises of human development is that all domains of development—physical, social, emotional, and cognitive—are integrated," states the NAEYC's 1987 position paper. This basic premise of the nongraded model is supported by a host of researchers and educators.

Research on the human brain has found that the brain processes many elements simultaneously, that it organizes new knowledge in the context of past experience, and that facts not embedded in spatial memory require more practice to master. In other words, information taught in a meaningful context is more easily learned than isolated facts, and much more information can be transmitted this way (Betty Shoemaker 1989).

Psychologist David Elkind (1987) describes the learning of young children as "permeable." Children don't divide knowledge into separate categories—math, reading, physical education. "Rather, their thinking is organized around projects, activities, and frames." In the course of each project—a meaningful, interesting event to the child—skills and information of all sorts are learned much more effectively than if the components had been isolated and taught out of context.

The Kentucky Department of Education (undated a) reports that longitudinal research comparing the High Scope integrated curriculum with teacher-directed DISTAR programs shows "increased intellectual gain, long-term effects of reduced delinquency and drug abuse, less parent conflict, and higher expectations for educational attainment" with the integrated curriculum.

How Emotions Affect Learning

Brain research also shows that the learner's emotional state dramatically affects learning (Shoemaker). Leslie Hart (Kentucky Department of Education undated a) stresses the importance of creating a learning environment for young children that is secure and noncompetitive. A state of "relaxed alertness" is a necessary physiological condition for learning, particularly in the young (G. Caine and R. Caine in Kentucky Department of Education undated a).

After studying the early development of 120 creative and high-achieving young adults, Bloom and his associates concluded that children whose school experience was pleasurable were more diligent and achieved greater success in their careers (Goodlad and Anderson). Other educators agree that giving children an emotionally positive primary school experience lays the foundation for academic success. In Elkind's words, "With gifted and

talented individuals, as with children in general, the most important thing is an excitement about and enthusiasm for learning. Skills are easily learned when the motivation is there."

Research on Mixed-Age Grouping

Research indicates that mixed-age grouping has advantages for primary-level children, whatever their age and level of ability. It also has advantages for teachers.

Anthropological and Sociological Perspectives

Mixed-age play groups were the norm for children in most cultures of the past. These kinds of groups are still the norm in less industrialized cultures today, as they are for young primates, reports Pratt. Research shows that children will select friends and playmates of a relatively wide age range if given the opportunity. For example, in a 1981 study of urban children by Ellis, Rogoff, and Cromer, children were observed associating with same-age peers only 6 percent of the time; 55 percent of the time they associated with children a year or more older or younger, and 28 percent of the time with adults (Katz and others 1990). "If children spontaneously form heterogeneous groups," Katz and her colleagues ask, "why do adults typically segregate them by age?"

In a study of children in six different cultures, Whiting and Whiting found that in all of them children in same-age groups were more aggressive than children in mixed-age groups (Pratt). Cooperation is fostered in mixed-age groups by the different expectations children have of those older and younger than themselves. French found that primary-age children perceived younger children as more in need of assistance, older children as more able to provide leadership and help (Katz and others 1990).

Recent societal trends, Katz and her associates note, have reduced children's opportunities to interact with those of other ages, either in neighborhoods or within the family. "Smaller family size and out-of-home employment for both parents lead to children spending most of their waking hours in schools and [day-care] centers," which are typically age-segregated (Katz and others).

Social and Emotional Benefits

In *The Case for Mixed-Age Grouping in Early Education*, Katz and her colleagues survey the research on the subject. To summarize, research indicates that participating in mixed-age groups benefits both older and

younger children. Older children take a greater role in directing and organizing play. These interactions provide opportunities for them to practice and improve leadership skills. Younger children gain opportunities to join in more complex play than they could initiate themselves, and to improve their social skills in interacting with more mature playmates.

Mixed-age grouping provides special benefits for at-risk older children. Two studies found that isolated preschoolers experienced greater social success with age-mates after being paired with younger children. Katz and her associates suggest that interacting with younger, less threatening classmates enables insecure older children to more easily practice and improve their social skills. Other research found that children who had difficulty following rules became more successful in controlling their own behavior after being asked to remind younger children to obey (Katz and others).

The NAEYC reports that recent research strongly indicates children rejected by their peers "are at significant risk to drop out of school, to become delinquent, and to experience mental problems in adulthood" (NAEYC). Nongraded primary education may help prevent these problems from developing.

Cognitive Benefits

In mixed-age groups, younger children have opportunities to learn from more cognitively advanced classmates as well as from the teacher. Children increase their vocabulary more rapidly when they are grouped with slightly older children (Pratt). Working cooperatively with more "expert" children helps "novices" master more advanced problem-solving skills (Katz and others).

More advanced students also benefit from mixed-age groups. The Kentucky Department of Education (undated a) cites research at Johns Hopkins University that found that

> high achieving students working in heterogeneous learning groups score higher on retention tests than do high achievers who participate in competitive or individualistic learning situations. Also, while bright students are often resented and sometimes ostracized in a competitive setting, they are seen as desirable partners in a cooperative setting.

Research on peer tutoring, while not focused on age differences, also has implications for mixed-age grouping. Lipitt found that peer tutoring produced academic improvement for both parties, and for the tutors it increased self-confidence and improved attitudes toward school (Kentucky Department of Education undated a, Katz and others). Pratt reports that tutoring is most effective when the tutor is older than the person being tutored.

Benefits for Teachers

Katz and her associates also mention benefits of mixed-age grouping for teachers. The atmosphere of cooperation and the increase in prosocial behavior can substantially reduce discipline problems. In addition, the fact that older children can help younger ones with simple tasks frees teachers to give individualized attention where it is needed (Randa Roen Nachbar 1989).

Studies Comparing Graded and Nongraded Classes

Comparisons of graded and nongraded classes are generally either inconclusive or favorable to the nongraded approach.

In 1977, Pavan reviewed thirty-seven studies reported between 1968 and 1976. The results favored nongraded programs both in terms of standardized achievement test scores and in terms of student attitudes toward school. These effects were more marked the longer students had been in nongraded programs. Nongrading was found to be "particularly beneficial in terms of academic achievement and mental health for blacks, boys, underachievers, and students of lower socioeconomic status" (Goodlad and Anderson).

Pratt reviewed thirty studies conducted in elementary schools in the United States and Canada. No consistent difference was found between multiage and conventional classrooms in terms of academic achievement. However, multiage grouping tended to be associated with better self-concept and more positive attitudes toward school. Pratt noted that "many of the studies suffer from imperfect control of differences between teachers and schools which elected or rejected multiaged grouping." This problem may have contributed to the frequency of inconclusive results.

Miller (1989) reviewed thirteen studies of multigrade classes, with results similar to Pratt's. In terms of academic achievement, there was no significant difference between single-grade and multigrade classes, but in terms of emotional factors, results favored the multigrade classes. Students in multigrade classes had more positive attitudes toward school and toward themselves, and, to a lesser degree, more positive social relationships.

As Miller (1991) summarizes, research shows multigraded classrooms to be *as effective* as single-grade classrooms in terms of achievement, and *superior* in terms of student affect. Goodlad and Anderson (1987) make a stronger statement: "There is simply no research that says graded structure is desirable."

Chapter 3

The Nongraded Classroom in Practice

The basic elements of nongraded education—mixed-age grouping, continuous progress, integrated learning, and developmentally appropriate practice—can be put into practice in a multitude of ways. They can be adapted to suit the needs of large school systems with many primary classes and teachers, or those of isolated rural schools with a single teacher and a handful of children. They can be adjusted to fit individual teaching styles, the preferences of particular communities, and a wide variety of physical settings.

A Different Kind of Structure

A 1989 newspaper article on British Columbia's primary education reform illustrates a common misperception of nongraded education. It calls the ungraded approach "a less structured form of learning" and quotes an elementary school principal as saying, "We have seen the product of unstructured programs and it is poor.... They want to throw my structure out and that will create chaos" (Tim Jones 1989).

Nothing could be further from the truth. At first glance, an uninformed observer might judge a graded classroom with children seated quietly in orderly rows of desks to be "more structured" than a nongraded classroom in which children move between learning stations, some chattering as they work together on projects, others reading in a corner or listening to music through headphones. But careful thought and planning underlie that apparent looseness. The successful nongraded classroom isn't unstructured—it's just differently structured.

The Framework for Learning: School and Class Organization

Deciding how to group students and teachers is one of the first organizational steps in implementing nongraded education. Basic considerations are the number of people involved, the preferences of staff and parents, and the physical layout of the available classrooms.

Please note that the labels K, 1, 2, 3, and so forth are used merely for convenience; they would not exist in a nongraded program.

Determining Class Composition

Mixing ages. A nongraded class should, by definition, contain children varying in age by at least a year, but it may contain children of a larger age range. The Kentucky Department of Education (undated a) spells out the possible ways ages can be mixed. *Multi-year* groups may contain children from three or four different years of the primary program: the equivalent of the former K-2, 1-3, or K-3. *Dual-year* groups could contain children formerly designated K-1, 1-2, or 2-3. *Single-year* groups may contain children who are in the same year of the primary program, but range in age by two or three years.

Teachers and researchers disagree on the best way to mix ages. Teacher Randa Nachbar (1989) is among those who feel classes of five- and six-year-olds work wonderfully. However, some teachers feel strongly that five-year-olds should not be grouped with children any older, as they are developmentally still in the preoperational stage (Cushman 1990). John Campbell School in Selah, Washington, originally placed five- through eight-year-olds in the same class (T. Marjorie Oberlander 1989), but later dropped the five-year-olds from the combination to lighten the teacher's load (Willis 1991).

Montessori schools divide children into overlapping age groups: 1-3, 3-6, 6-9, and 9-12. The overlap acknowledges the developmental changes that occur around six and nine years of age, when some children move to the next cognitive stage earlier than others. Montessori teacher Mary Motz praises the social advantages for children of putting three years in one class, but agrees that it's more work than teaching just two years (Cushman).

Other Class-Assignment Criteria. Age is not the only criterion to consider in grouping children. Oberlander describes the criteria used at John Campbell School. To ensure that each room had a heterogeneous mix, children of perceived high, medium, and low ability were assigned to each class. "We also made sure that each teacher received some children in need of special education, some minority children, and a mix of girls and boys." Parents' preferences were also considered, which was relatively easy since John Campbell had graded as well as nongraded classrooms.

The Kentucky Department of Education (undated a) also mentions these factors, plus social considerations such as children's friendships, family relationships, and compatibility with the teacher.

Nachbar says of her K-1 classes, "My experience suggests that random selection works as well as any fixed criteria." The Jeffersontown Elementary School in Louisville, Kentucky, also assigns children randomly (KEA-AEL 1991).

The Lake George Elementary School in New York tried "separating students who needed more structure from more independent learners" (Cohen 1989b). This approach was dropped when staff realized it gave the segregated "problem pupils" less opportunity to interact with, and emulate, more mature peers.

Shirley Gidley, specialist for the Oregon 21st Century Schools Council, points out that the configuration chosen depends on the size of the school in addition to staff preferences. A small school's only option might be K-3, while a large urban school would have sufficient primary-age children to experiment with several possible combinations.

Family Grouping. A common option is to keep children in the same classroom grouping, with the same teacher, for more than one year. This is known as *family grouping* or, less often, as *teacher cycling*. For example, in New York's Central Park East Elementary School each class contains two "grade" levels, and children spend two years with the same teacher (Cushman). In Arcadia Neighborhood Learning Center in Scottsdale, Arizona, which arranges students in K-2, 1-3, and 2-4 combinations, students stay in the same class for three years ("Arizona School Welcomes Change to Ungraded Primary" 1991).

This arrangement has advantages for both teachers and students. Only one-third of each teacher's students are new each year, which means only one-third as many new names, personalities, and sets of abilities to learn. Students in their second or third year are "old hands" who can welcome the newcomers and help teach them the rules. Students are required to make fewer transitions, and discipline problems diminish due to the greater familiarity the teacher has with each child (Cushman).

Some students will take more or fewer than the "standard" number of years to finish the curriculum—for example, two or four years to complete the "1-3" span. This individual variation is less conspicuous when children remain in a class for more than one year and aren't expected to move on all at once.

Parents often have reservations about multiple-year classes, say Goodlad and Anderson:

> While parents agree that there are benefits in having their children

with a strong teacher for more than a single year, they abhor the thought of exposing their children to two or more years of contact with a weak teacher. The answer may lie in organizational devices such as team-teaching, which permits long-term relationships of children with teachers while also allowing a variety of adults to be involved.

Team Teaching

Team teaching, which is frequently associated with nongraded education, has many advantages. The larger pool of students yields more possibilities for creating subgroups for specific purposes. Children with nonstandard learning styles benefit from the diversity of teaching styles, and all the children can benefit from the particular strengths of different teachers—in art or science, for example.

Patterns and Frequency. The pattern and frequency of collaboration may vary with the school's physical layout and the preferences of the teachers. The five teachers in the nongraded program at John Campbell School decided to situate their classes in a large open area, which they felt was "advantageous for planning and visual contact" (Oberlander). At Public School 41 in Brooklyn, New York, teachers in "clusters" of three or four classrooms work together as "core teams." Clusters work together on special projects, and children may move back and forth between classrooms to join instruction groups (Cushman, Cohen 1989b).

London Elementary School, a small 100-student school just south of Cottage Grove, Oregon, places its K-2 and 3-5 students in two "homerooms" for half of each day. Homeroom students study all subjects together except reading and math. During the other half of the day, the teachers divide the students into small math and reading groups according to skill levels, without regard for age or year in school. Teachers report that the traditional "bossiness and bullying" of younger children by older ones has almost totally disappeared since the multiage classes were established (Janelle Hartman 1992).

Cooperative Planning. Whatever the physical setting, team teaching requires group planning time and constant communication among team members. Core team members at P.S. 41 share lunch and planning periods each day in order to share information about children and coordinate projects. Teachers at Arcadia Neighborhood Learning Center meet after school several times per week. Some teachers may find this group process difficult and uncomfortable. Shirley Gidley recommends training in group decision-making for teachers who are unfamiliar with the process.

Cushman quotes Central Park East Director Esther Rosenthal on the

possibility of friction: "You have to be reasonable about the interpersonal stuff.... With collaborative work, you have to be constantly talking about what you're doing, and it gets to be a strain." Cushman says that other teachers who have teamed up agree that "the right match of chemistry and teaching styles can make all the difference in how it works."

An Option, Not a Necessity. Goodlad and Anderson support team and cooperative teaching approaches as "the most promising ways of organizing schools horizontally," but emphasize that teaming is not a "necessary concomitant" of nongrading. The Kentucky Department of Education (undated a) promotes team teaching as an option for those comfortable with it. A single teacher can successfully implement nongraded education in a self-contained classroom.

Collaboration can enable teachers to experiment with mixed-age grouping within a traditional structure. Teachers of single-age classes can coordinate with other teachers to create mixed-age groups for portions of days, or for occasional integrated projects. This can also serve as a transition stage to a completely nongraded structure.

Classroom Organization and Materials

The concepts of active, hands-on learning and flexible grouping determine the physical organization of the nongraded classroom. Rows of desks do not face one direction; instead, tables and chairs are scattered around the room, ready to be regrouped for activities with large or small groups of children. Permanent seat assignments are not made, but children typically have a cubbyhole labeled prominently with their names for storing folders and personal materials. Supplies are shelved where children can reach them.

"Learning Centers" are scattered around the room: tables holding math, science, and art materials; a sand table with plastic toys for pretend play; a cozy, carpeted library corner with bean-bag chairs and low shelves stacked with a variety of interesting books. Tables and chairs are arranged so that children may work on projects in groups or engage in solitary journal writing. The NAEYC recommends that activity centers be changed frequently to give children new things to do, and that children and teachers decide on new projects together (NAEYC).

A math learning center should contain a variety of manipulative materials, games, and puzzles. Cuisenaire rods, developed by Belgian teacher M. Georges Cuisenaire in the 1930s, are one of the best-known manipulative math materials. These are wooden rods one square centimeter across, ranging in length from one to ten centimeters, each length a different color. In experimenting with Cuisenaire rods, children can "discover" basic

mathematical relationships (KEA-AEL).

Other examples of math materials include abacuses, balance scales with different weights, containers for measuring liquids, and colorful plastic geometric shapes that can be joined together, counted, and measured. Fortunately for school budgets, "You won't need twenty-five of everything, since most activities will only involve a few children at a time," notes Cushman. Materials as ordinary and inexpensive as bottle caps and popsicle sticks can serve as objects to sort and count.

Textbooks such as basal readers may be used, but they are not central. Many other attractive and interesting types of literature, at varied levels of difficulty, are available for children to choose, including multicultural and nonsexist materials. Maps, globes, computers, musical instruments, and listening equipment are desirable supplementary materials.

Flexible Grouping Strategies

Students in a nongraded classroom are grouped for instruction in many ways, some of which are also used in graded classrooms. The difference is in the *flexibility* of the grouping. Children are grouped for specific and temporary purposes, and frequently regrouped by different criteria.

Homogeneous Grouping

Even the greatest supporters of mixed-age and mixed-ability grouping agree some curricula are most effectively taught to children of similar experience and achievement. Goodlad and Anderson cite basic reading skills and arithmetic as principal examples. Homogeneous grouping for this purpose is *achievement grouping*. Math and reading groups in a nongraded school include children at the same developmental level regardless of age, possibly from different classrooms. Regrouping occurs frequently to accommodate students who advance in spurts.

Children who are homogeneous according to one criterion typically vary widely in other ways, so they may be assigned to other homogeneous groups determined by different factors. For example, *learning-style grouping* brings together students with a common learning style; *reinforcement grouping* brings together children who need extra practice on a specific skill or task; and *interest grouping* brings together those who share a common interest (Cushman).

Goodlad and Anderson mention a strategy developed by a Florida teacher: grouping according to independence in study skills. The group of children least advanced in terms of self-discipline needed considerable

attention and assistance in planning work, while a middle group needed a moderate amount of teacher supervision, and the most advanced group could work with minimum assistance.

Teachers developing the nongraded program at John Campbell School were particularly concerned about developmental differences for physical education classes. Their solution:

> Early in the year the teachers worked with the physical education specialist to analyze children's physical skills before regrouping them into different physical skills groups. For 30 minutes each day, one of these groups would go to P.E., two to music (different teachers), one to the library, and one to a class in personal safety and drug and alcohol awareness. The arrangement worked well. (Oberlander)

Primary teachers at Westmoreland School in Eugene, Oregon, plan to occasionally combine TAG (talented and gifted) children from all their classes in one homogeneous group. Gifted children "need the opportunity to work with other students who are talented and gifted," says teacher Carol Olson, "so they don't feel so isolated. Because frequently they're the only one in the room, or one of two."

Heterogeneous Grouping

Goodlad and Anderson make a distinction between subjects with an internal organization that must be mastered in sequence, such as math, and subjects whose content has no intrinsic order, such as science and social studies.

In science, for example, certain broad principles and processes must be understood, such as ecology; certain cognitive processes must be developed, such as interpreting facts; and specific study skills must be learned, such as how to use reference materials. In studying a topic together, students starting at different levels can learn these principles, develop these processes, and begin to master these skills or refine them to a greater degree. Learning to use the scientific method is a process that takes years, as comprehension gradually grows; the order in which topics are presented is not significant.

Cooperative Group Projects. Subjects like these lend themselves to heterogeneous group study in the form of cooperative projects. Tasks can be divided according to the skill level of the child. For example, if books are being made to display what the group has learned about a topic, younger children can create the illustrations while older children write the text and bind the book (Katz and others).

Working in this format yields a threefold benefit. Children learn about the topic, taking in as much as is comprehensible to them at their current level of understanding. They practice skills at their current level of ability—

writing, drawing, organizing. Last but not least, they practice social skills and learn to work cooperatively. These teamwork skills will be valuable in adult life whether the child becomes a construction worker, an office assistant, or a medical researcher.

Katz and her associates point out several ways adults can encourage successful cooperation. For example, if a group of children is working on a play and the "producers" decide some younger classmates aren't good enough actors to participate, the teacher can suggest additional, simpler roles or point out special talents of the younger children.

Group Sharing and Individual Challenge. Music, art, and language contain specific skills that must be learned, but they also have a highly individual creative element. At the elementary level, "A single stimulus may be used for children of widely varying levels of development," say Goodlad and Anderson. For example, children of various ages and skill levels can draw pictures inspired by the same piece of music, each child equally challenged though they produce art work at widely different levels of sophistication.

Another example: the teacher can read a story or poem aloud, lead a group discussion on the experiences of the characters or the theme of the poem, then direct children to express their thoughts and feelings by writing or drawing in individual journals.

Problem-Solving Grouping. Grouping students to discuss an unsolved problem can be used in any subject area: literature, social studies, health (Cushman). For example, Westmoreland School teacher Terry Snyder leads a group of children aged five to eight in a two-stage group discussion, part of a unit on transportation with the specific goal of teaching categorization.

First comes a brainstorming session to name as many types of transportation as possible. Snyder asks each child in turn for ideas, writing them on the chalkboard with vigorous gestures that mimic the type of movement. Next, he challenges the group to think of different ways these types of transportation could be grouped together. Categories suggested by the children include muscle-powered transportation (pogo stick, swimming, and bicycle) and transportation through the air (jet plane, helicopter, hot air balloon).

Snyder comments later, "I tell you, during the lesson I forget who is who. And sometimes it'll be real surprising. One of the little fellows in the back row could go into third grade next year, and I forget he's a five-year-old. And one second grader is probably emotionally a four or five year old. You really can't tell, as a general rule."

During group discussions, teachers can foster cross-age interaction by directing questions and comments back and forth between children. Katz and her colleagues give some examples:

> The teacher might ask...'What do you think about that, Annie?' Or, she can ask the group, 'Have you any suggestions for Jerome's project on lizards?' Such strategies indicate to the children that lines of communication can go from child to child as well as from child to teacher and teacher to child.

Heterogeneous Pairs. The extensive research on peer tutoring has shown the value of pairing children at different levels of development or achievement. This pairing can range from asking an older child to help a younger one write her name on a painting, to assigning a pair to a regular tutoring relationship.

Encouraging one child to read to another benefits both, as Nachbar (1989) describes. "The children learn so much from each other as well as from the books. Invariably, a first grader teaches a kindergartner some words. Their excitement with reading is contagious!"

Katz and her colleagues suggest that teachers encourage younger children to request help and advice from older students, and encourage older ones to assume responsibility for helping younger ones. However, they warn against exploiting older children as helpers to the extent that their own progress is impeded. They also recommend monitoring interactions to ensure that problems are not developing. "Occasionally, a teacher has to tone down excessive zeal on the part of a responsible older child who may take her responsibilities a little too seriously! It takes some children time to learn the distinction between being helpful and being domineering."

Integrated Curriculum

Members of a primary school class write a letter to the school district, requesting that a school bus be parked in their school's parking lot for several days. During this time, they walk around the bus and climb aboard, inspect it thoroughly, and learn to identify its different parts. In the classroom they discuss traffic rules. Finally they construct their own "bus" out of cardboard. Every evening for weeks, the children's parents hear enthusiastic stories about the bus (Kantrowitz and Wingert).

These children have had an *integrated* learning experience. They used all their senses actively in learning about the bus—looking, listening, touching, smelling. They used verbal and written language skills, art skills, and group problem-solving skills in discussing it and building the model. The lesson connects with their lives outside the school, whether they ride a school bus themselves or simply see buses drive by on the street.

The term *integration* has different connotations in various education and research contexts. This Bulletin focuses on those aspects particularly

relevant to primary education: that information is more easily learned and remembered when it is taught in a meaningful context, when it is relevant to the learner, when the learner takes an active role and uses multiple mind/body functions in learning. Shoemaker explores the spectrum of meanings in depth in the October 1989 OSSC Bulletin, *Integrative Education: A Curriculum for the Twenty-First Century.*

In discussing interdisciplinary instruction, Bondi notes that "the 'real' world is a world of issues, topics, problems and situations—not disciplines, subjects or courses" (Shoemaker). It is hoped that integrated instruction will prepare students to apply their knowledge to real-world problems more effectively than does a differentiated curriculum.

Teaching around Themes

Shoemaker distinguishes between two types of theme teaching: the *topic* approach and the *concept* approach. "Dinosaurs" is an example of a topic, while "extinction" is an example of a concept. "Using a topic as a theme provides a narrow area of study for a short period. Using a concept as a theme allows for a broad area of study in which many topics can be explored." Shoemaker strongly supports organizing curricula around conceptual themes.

For example, in the *Education 2000 Integrated Curriculum* developed by the Eugene School District, "communities" is one of six concepts chosen as major organizers for the curriculum. From the subordinate concept "cultures," primary teachers at Westmoreland Elementary School selected China and Mexico as topics to study and presented the unit to their combined classes as a trip around the world.

First, children made passports for themselves. Next, they went to one classroom designated as the "plane," where they were given souvenir wing pins (obtained from a teacher whose daughter conveniently works for an airline company) and saw an "in-flight movie" about the countries they were going to visit. "As the children would rotate through the various rooms they would take trips to various countries," Olson explains. "And we would do lessons in art, science, and writing, from those various countries." As the children learned to count in several different languages, they gleefully challenged each other to do simple arithmetic using French, Korean, Japanese, and Chinese numbers.

Whole-Language Instruction

The whole-language approach, which developed out of "language experience" approaches of the sixties and seventies, shares many elements

with thematic instruction. It asserts that literacy is best taught in the meaningful context of literature and communication, rather than as a series of isolated subskills to be mastered step by step. It regards all aspects of language development as interrelated and holds that children can learn to read and write naturally, just as they learned to listen and speak (Russell Gersten and Joseph Dimino 1990).

Real books—not basal readers or edited, simplified versions—are central to whole language teaching. Teachers should frequently read aloud to children, presenting them with exciting and engaging stories, playful rhymes to recite together, and colorful illustrations to look at. The teaching of subskills such as phonics can be integrated into this enjoyable sharing.

According to Gersten and Dimino, research indicates that the whole language approach alone is insufficient for some students. While communicating the joy of reading is important, many students also need systematic, step-by-step instruction on the component skills, repeated practice, and specific feedback.

The NAEYC endorses an integrated approach to the teaching of language and literacy that includes many elements of the whole-language approach. The association supports teaching subskills as needed to individual children and small groups, accepting children's invented spellings, and teaching literacy skills in the context of projects in other content areas.

Assessment and Evaluation

Primary teacher Terry Snyder recalls seeing an endless series of committees struggle to revise report card formats during his twenty years in education. In his opinion, the limited alternatives on report card checklists "never match what's really going on, especially with small children. You look at so many different components, and it's not a black-and-white thing."

The NAEYC agrees with Snyder, discouraging the use of letter or numerical grades for primary children as "inadequate reflections of children's ongoing learning" (NAEYC). This section examines some alternative, qualitative methods of assessment commonly used in nongraded primary programs. The Kentucky Department of Education (undated a) describes such methods as "authentic assessment—an assessment of what we actually want students to be able to do or understand."

It should be remembered that assessment by qualitative methods is not necessarily linked with nongraded class organization. Some nongraded classes use grades for assessment, while some graded classes use qualitative methods.

Narrative Descriptions of Student Progress

A variety of organizations and educators recommend assessing student progress by observation and regular recording of narrative comments, also called anecdotal records or reports. Records can also be made using other media, such as audiotape or videotape.

Goodlad and Anderson urge teachers to record specific, *descriptive* comments as opposed to general or judgmental statements. For example, the comments "Jimmy is now reading with fewer pauses for word recognition than several months back" and "he is learning to write the more difficult letters (such as n, r, d, e) in less time" are more accurate and useful than "Jimmy is doing well in reading" and "his handwriting is getting better" (Goodlad and Anderson).

Collections of Students' Work

Collecting samples of children's work over time provides vivid and concrete evidence of progress. In addition to samples of the child's best work—some selected by the teacher, some by the child—Westmoreland School portfolios also contain children's personal background information, standardized test scores, notes on their level of achievement in various curriculum areas and on any special enrichment or remediation programs in which they are participating.

Westmoreland teacher Carol Olson displays a simple but ingenious assessment tool kept in the portfolio: a sheet of white paper containing four columns of ten lines each, folded over and taped shut so that only one column is visible. A spelling test of the same ten dictated words is given four times per year, each time with the sheet folded to reveal a different blank column. Unfolding the sheet dramatically reveals a child's progress over the course of the year—from a few straggling letters written almost at random, to mastery of most letters with guessed or invented spellings, to neater printing and a greater number of standard spellings.

Conferences with Parents and Children

Parent conferences are a form of progress reporting particularly important for nongraded programs. Finding time and space for face-to-face conferences can be a challenge, however. Scheduling conferences after school or in the evening cuts into the teacher's personal time, dismissing school cuts into lesson time, and providing substitutes to free teachers for conferences is expensive.

Goodlad and Anderson note that dismissing school early a specified number of afternoons per year is more popular with parents than dismissing

school for an entire day or afternoon, and also avoids "running afoul of the attendance laws in many states, where a 'day' must be a certain length." They also suggest providing teachers with inservice training in both oral and written reporting techniques.

Frequent informal conferences with children are an important part of nongraded education. These need not be formally scheduled conferences, just a few quiet minutes of conversation in a corner. Talking with children helps teachers discover how they feel about their own progress and about any problems they may be having. Primary age children may be excessively self-critical; they need realistic feedback and encouragement on tasks they are finding difficult, as well as praise and acknowledgement for their achievements. Conversations with the teacher help them learn to evaluate themselves constructively and to set appropriate individual goals (Ministry of Education 1991c).

Comparing Individual Progress to General Norms

A continuous progress format without competitive pressure may optimize children's learning, but parents will still want to know how their children are progressing compared to others. To give both teachers and parents a frame of reference, the Ministry of Education (1991c) of the province of British Columbia has developed listings of "widely held expectations" for children's development in physical, social, emotional, intellectual, and artistic areas, as well as in the specific curriculum areas of mathematics and reading.

Charts describe behavior, skills, and concepts children usually master within certain age ranges, rather than listing specific achievements expected of all children by specific ages. Parents can see how their child's progress compares to these general normative ranges, while being encouraged to accept that some variation from area to area is normal. This also avoids better-or-worse comparisons with the child's classmates.

Accountability and Testing

Public concern about the shortcomings of the educational system has resulted in increased demands for accountability on the part of schools, districts, and individual teachers. Evidence of improvement in student performance is being called for at local, state, and national levels. Teachers, school boards, and parents want quantitative measures that will enable them to evaluate the comparative effectiveness of different instructional approaches.

In the past, improvement in student performance has usually been

equated with higher standardized test scores. Standardized tests may provide a useful standard of comparison, at least once children have reached the age at which test results are valid. As was previously described, test scores of students in nongraded programs generally equal those of students in graded programs.

However, many educators and other citizens are troubled about the limited information and skills that standardized tests are capable of measuring. A child who can correctly indicate which one of four words is misspelled can't necessarily write a coherent paragraph (Kantrowitz and Wingert); a student who can perform rote mathematical calculations may be unable to apply those skills in real-world problem-solving (Fran Salyers 1991). Educators are searching for new types of testing that measure the ability to apply skills and knowledge.

The Kentucky Department of Education is developing a new, primarily performance-based, assessment system called the Kentucky Instructional Results Information System, or KIRIS.

KIRIS consists of three main types of assessment. First is the evaluation of student portfolios, as described above. Second, KIRIS will give students "assessment tasks" that require them "to use knowledge and skills learned in school to produce a product or solve a problem. Rather than recall facts, students will apply what they have learned to a real situation" (Thomas C. Boysen 1991). The third component of KIRIS is a paper-and-pencil examination modeled after those created by the National Assessment of Educational Progress. This test will use some multiple choice and some open-ended questions to assess students' ability to use "higher-order thinking skills... reasoning, analytical and written communication skills" (Boysen).

Kentucky is only mandating this "accountability assessment" after the primary level, starting in grade 4, but it encourages voluntary assessment of a similar type at the primary level. Nongraded instruction that uses active, integrated learning should increase students' ability to apply their knowledge in the manner KIRIS will assess.

Qualitative and performance-based types of assessment may be more time-consuming to administer and evaluate. Computer-graded multiple-choice exams are much easier and more efficient to administer and analyze. But as Goodlad and Anderson point out, "Efficiency takes on proper meaning only in relation to the job that should be done. To recognize that something is easy does not justify our doing it."

Conclusion: A Question of Balance

Kantrowitz and Wingert quote Illinois professor Lilian Katz as saying, "People think that school has to be either free play or all worksheets. The

truth is that neither is enough. There has to be a balance between spontaneous play and teacher-directed work."

This theme of balance runs through all the elements that make up the nongraded classroom. A balanced mixture of ages and abilities is important in determining class composition. Then the teacher must guide interactions to ensure that younger children don't become too dependent, nor the older children too bossy. Collaborating teachers must balance their personal needs and preferences against those of the team as a whole.

In structuring the school day, teachers must vary sizes and types of grouping—large and small, homogeneous and heterogeneous, high-energy and quiet time. The shared pleasure of reading aloud must be leavened with individual instruction and feedback. Staff at P.S. 41 and the Lake George Elementary School strive to balance structured activities with those that offer children choices (Cohen 1989b).

Miller (1989) feels establishing "a context of clear rules and routines" is vital to the success of the multiage classroom. Within this secure and predictable structure, children can enjoy having the freedom to explore individual interests. And with their individual differences accepted, they can find a true sense of community in their classroom, not just an enforced conformity.

Conclusion

Nongraded primary education is supported by an impressive amount of research and experience gathered over the course of decades. The schools, districts, and states that have chosen to explore or mandate it have a solid foundation for their decisions.

Goodlad and Anderson report,

> *The vast majority of educators who have worked with nongrading are enthusiastic about it....* Negative reactions from teachers and administrators actually conducting nongraded schools are hard to find. Similarly, surveys report positive reactions from parents, 83 to 96 percent responding positively.

However, the prospect of nongraded primary education elicits anxiety and dismay from educators and parents who have *not* had experience with it. Research shows that teachers generally approve of the structure with which they are familiar (Pratt 1986). The challenge is to help teachers, administrators, parents, and entire communities become as comfortable and familiar with nongrading as they are with the traditional graded approach.

This challenge will be the focus of next month's OSSC Bulletin, *Making the Transition from Graded to Nongraded Primary Education.*

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Carol Lauritzen, Professor of Education, Eastern Oregon State College, La Grande, Oregon. Telephone interview December 19, 1991.

Carol Olson, Primary Teacher, Westmoreland Elementary School, Eugene, Oregon. Telephone interview November 22 and personal interview December 5, 1991.

Terry Snyder, Primary Teacher, Westmoreland Elementary School, Eugene, Oregon. Personal interview December 5, 1991.

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